

Figure 1A

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 121 tgatcctacgaaaaagaggataatggatactggccgcaattcgctggcgtccggaccctgat
 M D T G G N S L A S G P D 13
 181 ggtgtgaagagggaaagtgttattatcgaccctgaggtcggaattactactatggc
 G V K R K V C Y F Y D P E V G N Y Y Y G 33
 241 caaggtcatccatgaagccccatcgcatccgcatgaccatgccctcgctcactac
 Q G H P M K P H R I R M T H A L L A H Y 53
 301 ggtctccttcagcatatgcaggttctcaagcccttcgtcccgcaacgtgatctgc
 G L L Q H M Q V L K P F P A R E R D L C 73
 361 cgcttccacgcccacgactatgtcttttccgcagcattacccctgaaacccagcaa
 R F H A D D Y V S F L R S I T P E T Q Q 93
 421 gatcagattcgccaacttaagcgcttcaatgttggtaagactgtcccgctttgacggc
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 481 ctttattcctttccagacatgtggaggatctgttggctctgtcaagcttaac
 L Y S F C Q T Y A G G S V G G S V K L N 133
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 H G L C D I A I N W A G G L H H A K K C 153
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 P G T G H I Q D I G Y G S G K Y Y S L N 233
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 V P L D D G I D D E S Y H L L F K P I M 253
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 E A V E P D T K D K D G L K G I M E R G 453
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 E Q A F P P K T * 502
 1681 tgcattcaatgttgcatttttttttttttttttttttttttttttttttt
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Figure 1B

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 1681 caactgacttagtattttggcccaagtttagaaaatcagaatatgtgaaaaaaaaaaaa
 1741 aaaaaaaaaaaaaaggcgccgctctagaggatccaagcttacgtacgcgtcatgcacgtcat

FIGURE 2

A

FIGURE 2

B

FIGURE 3

AtRPD3A	ME-----TGG	NSLASVGPDG	VKEKCYFYL	FEVGNYYYGC	GHPMKPHRIF	45
AtRPD3B	MEADESCL--	-SLPS-SPDG	PKERWSYFYE	ETIGDYYYGC	GHPMKPHRIF	47
ZmRPD3	MEPSSAGS GG	NSLPSVGPDG	QSERUCYFYL	PDVGNYYYGC	GHPMKPHRIF	50
RPD3	WVYEATPFD-	---SITVKPS	CKERW AY FYL	ADVG MY ALGA	GHPMKPHRIF	46
AtRPD3A	WTHALLAHYC	LIQH W Y W YKE	FEARER EL LCF	FHAD Y V S EI	RSITPETOOL	95
AtRPD3B	WAHS L I W YH	LIHRRLEISRE	SLAFAS Y IGF	FS S PEYVDFI	ASVSPESMGE	97
ZmRPD3	WTHS L TY Y YC	LI N Q N QVY R	N E ARERELCF	FHAE Y Y I EI	RSVT P ETOOL	100
RPD3	WAHS L TY Y YC	LYK W Y W TYRA	K E ATKQ E MQ	SE T DEYIDFL	SRVTPDNLEM	96
AtRPD3A	QI--FOLKRF	IVG E DCPVFI	GLYSFCOTY A	GGSVGG S V K I	NHGLCDIAIE	143
AtRPD3B	PSAA F N I R R F	IVG E DCPVFI	SI F DCR A SA P	GGSI C AAV K I	NRQDA D IAIE	147
ZmRPD3	QI--F L KRF	IVG E ECPV I	GLYSFCOTY A	CA S VGGAV R F	NHCH - IAIE	148
RPD3	--FK E ESV K F	IVG D DCPVFI	GLY E Y C SI S G	EG S MEG E ARI	NR G KCIVAVN	144
AtRPD3A	WAGGLHHAKF	CEASGF C YVN	DIVLAILELI	SH E HRVLY V	IDIHHGDGVE	193
AtRPD3B	WGGLHHAKF	SEASGF C YVN	DIVLGILELI	SH E HRVLY V	IDVHHGDGVE	197
ZmRPD3	WSGGLHHAKF	CEASGF C YVN	DIVLAILELI	SH E HRVLY V	IDIHHGDGVE	198
RPD3	YAGGLHHAKF	SEASGF C YLN	DIVLG I ELI	RYH E HRVLY V	IDVHHGDGVE	194
AtRPD3A	EAFY A TDRV M	IVSFHKFGDY	FPGTGHICDI	GY E SGKYYSI	NVPL D DGIDI	243
AtRPD3B	EAFY T TDRV M	IVSFHKFGDY	FPGTGHIR I V	GA E KGKYYAI	NVPL E CGM I	247
ZmRPD3	EAFY T TDRV M	IVSFHKFGDY	FPGT G DIRDI	CH S KGKYYSI	NVPL D DGIDI	248
RPD3	EAFY T TDRV M	I O S H KY G E F	FPGT G ELRDI	CV E AGK N Y V V	NVPI R DGIDI	244
AtRPD3A	ESYHLLFKPI	MGKVME I FRF	GAVV L OCGAI	SLSGDR L GC E	NLSIKGHAEC	293
AtRPD3B	ESFRSL E REL	IK K VMEVY Q F	EAVV L OCGAI	SLSGDR L GC E	NLSVKGHAEC	297
ZmRPD3	ESYQSLFKPI	MGKVMEV F RE	GAVV L OCGAI	SLSGDR L GC E	NLSIKGHAEC	298
RPD3	AT Y RS V EE V	IK K IMEWY O F	S A VV L OCG G E	SLSGDR L GC E	NLSMEGH A C	294
AtRPD3A	VKE M RS V N V E	LLL L GGGGY I	IRNVARC W CY	ETGVALG V E V	EDKMF E HEYY	343
AtRPD3B	L R FLRS V N V E	LMVL G GG E Y T	IRNVARC W CY	ETAVAVG V E V	ENKLPY N E Y	347
ZmRPD3	VRYMRS V N V F	LLL L GGGGY I	IRNVARC W CY	ETGVALG Q E F	EDKMF V NEY Y	348
RPD3	V N YV V K S E G I E	M A V V GGGGY I	M R EV A FT W C F	ETG L NN V L	EKDL P Y N E Y	344
AtRPD3A	EYFGPDY T L H	VAPS N MEN K N	SR C MLEEIRN	D L I H NLSK I Q	HAPSVP E Q E R	393
AtRPD3B	EYFGPDY T L H	VDP S NMEN K N	TPKD M ERIRN	T L I H NLS G I	HAPSVO F Q H I	397
ZmRPD3	EYFGPDY T L H	VAPS N MEN K N	TR C Q D DIRS	---KLSKL R	HAPSV H FO E R	394
RPD3	EY Y SPD Y K I S	VRPS N MF N V N	TPEY L DF V MT	N I E A LEN T K	YAPSVC L N H T	394
AtRPD3A	PPDTET T PEV I	EDC C LG E K K W	DPDSDMDV D I	----- E	KE I PSE V K R E	435
AtRPD3B	PEVN R VLD --	----- E P D D M E --	EP D D M E --	----- E	KF -- R I WS G	421
ZmRPD3	VPDTET T PEV I	EDC C LG E K K W	DPDSDM E V D I	HK A VE E SS R E	SILG I K O K R E	444
RPD3	E ----- E	----- E	----- E	----- E	----- E	408
AtRPD3A	AV E PD T KDK E	GL G IGIM E R C K	SC E VEV D ES G	ST A T V ---GV	NPVG V E A S-	481
AtRPD3B	TAT Y ES D S D E	DD S PL -- H Y S	SE -- -- --	-----RGGATTER	DST G E D M D E	459
ZmRPD3	FG E NA T RV C E	GRV A SE E -R	SE P MAE D I G	SS Q APQ A CA	SAMAI D E F SN	493
RPD3	----- E	----- E	----- E	----- E	----- E	412
AtRPD3A	VK M EE E GT N C	GGA E C E F E PS	T			502
AtRPD3B	DN P E F D V N P -	----- E SS				471
ZmRPD3	V K N E P E S S T E	LGQQA E AY H P	P			514
RPD3	TK G GSQYARD	LG V EHDNEFY				422

FIGURE 4

AtHD2A	MEFWGIEVK	GPVTVTPEE	GILIHVSQAS	LGECKNKKGE	FVPLHVKVGN	50	
AtHD2B	MEFWGVAVT	KNATKVTPEE	DSLHVHSQAS	L-DCTVKSGE	SVVLSVTVG	49	
ZmHD2	MEFWCLEVK	GSTVKCEGY	GFVLHLSQAA	LGE	KKSD	NALMYVKIDD	
				*		48	
AtHD2A	QNLVLGTLST	ENIPQLFCDL	VFDKEFELSH	TWGKGSVYEV	GYKTPNIEPQ	100	
AtHD2B	AKLVIIGTLSQ	DKFPQISFDL	VFDKEFELSH	SGTKANVHEI	GYKSPNIEQD	99	
ZmHD2	QKLAIGTLSV	DKNPHIQFDL	IFDKEFELSH	TSKTTSVFFT	GYKVEQPFE	98	
	*						
AtHD2A	GYSEEEEEE-	EEEVPAAGNAA	-----	-----	KAVAKPK	AKPAEVKPAV	136
AtHD2B	DFTSSDDEDV	PEAVPAPAPT	AVTANGNAGA	AVVKADTKPK	AKPAEVKPAE	149	
ZmHD2	DEMDLQSEDE	DEELNVPE--	VVKENGKADE	KKQKSQEKAV	AAPSKSSPDS	145	
AtHD2A	-----DDEEDE	SDS-D-----	-----GMD	EDDSDGEDSE	EEE-----	162	
AtHD2B	EKPESDEEDE	SDDEDESEED	--DDSEKGMD	VDEDCSDDDE	EEDSEDEEEE	197	
ZmHD2	KKSKDDDS	EEETDDSDDED	ETDDSDDEGLS	SEEGDDDESSD	EDDTSDDEEE	195	
AtHD2A	PTP--KKPAS	-SKKRAANE	TTPKAPVSAKKA	KVAV-----TP	QKTDEKK---	202	
AtHD2B	ETP--KKPEP	INKKRPNE	SVSKTPVSGKKA	KPAAAPASTF	QK-----TEK	240	
ZmHD2	DTETPKKPEV	GKKRPAESSV	LKTEFLSDKKA	KVATPSS---	QKTGGK-----	238	
AtHD2A	-KGGKA-----	-----	-----AN	QSPKSASQVS	CGSC-KKTEN	229	
AtHD2B	KKGG--HTAT	PHPAK-----	KGGKSPVNAN	QSPKSGGQSS	GCNNNKKPEN	283	
ZmHD2	-KGAAVHVAT	PHPAKGKTI	VNNDKSVKSPK	SAPKSGGSVP	CKPCSK-SFI	287	
AtHD2A	SGNALE-SHN	KAKHAAAK				245	
AtHD2B	SGKQFGGSNN	RGSNKKGKG	RA			305	
ZmHD2	SETALQA-HS	RAKMGASESQ	VQ			308	

FIGURE 5

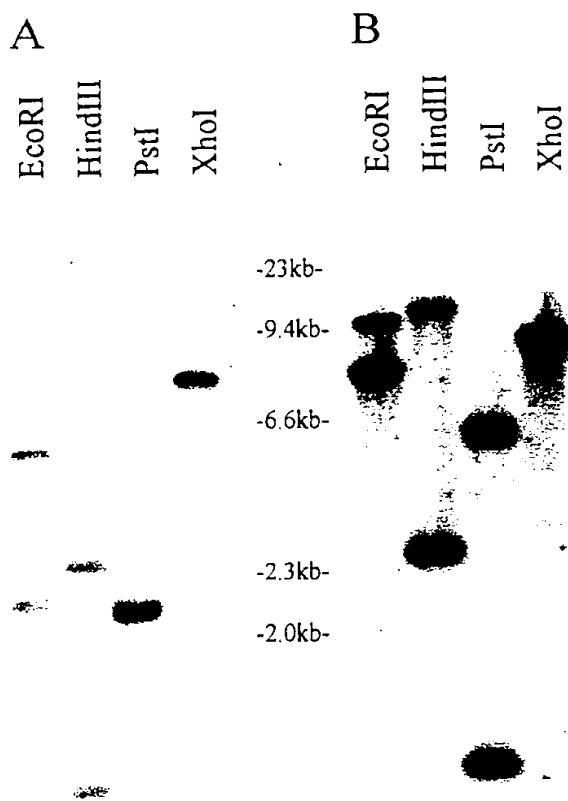


FIGURE 6

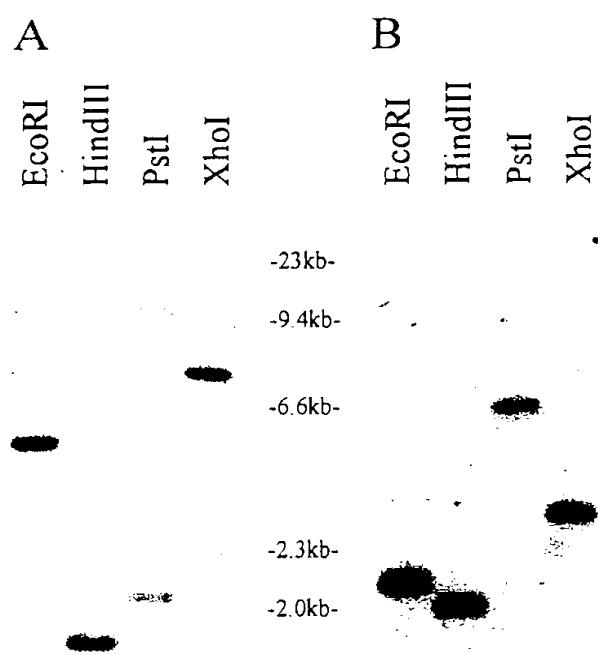


FIGURE 7

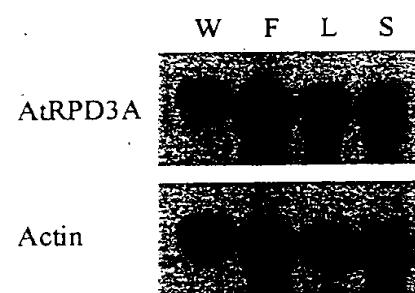


FIGURE 8

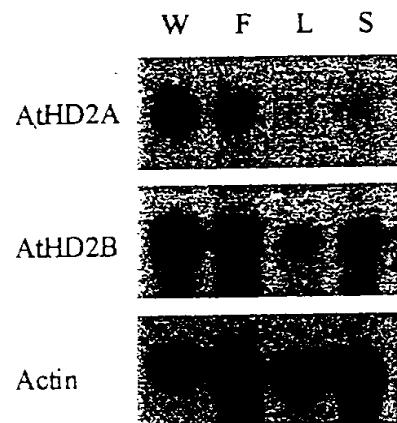
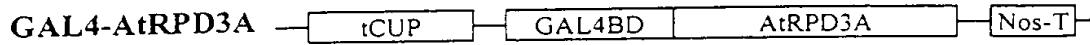


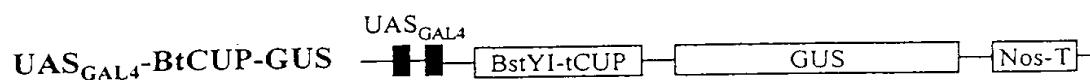
FIGURE 9

A

Effector Plasmids



Reporter Plasmid



B

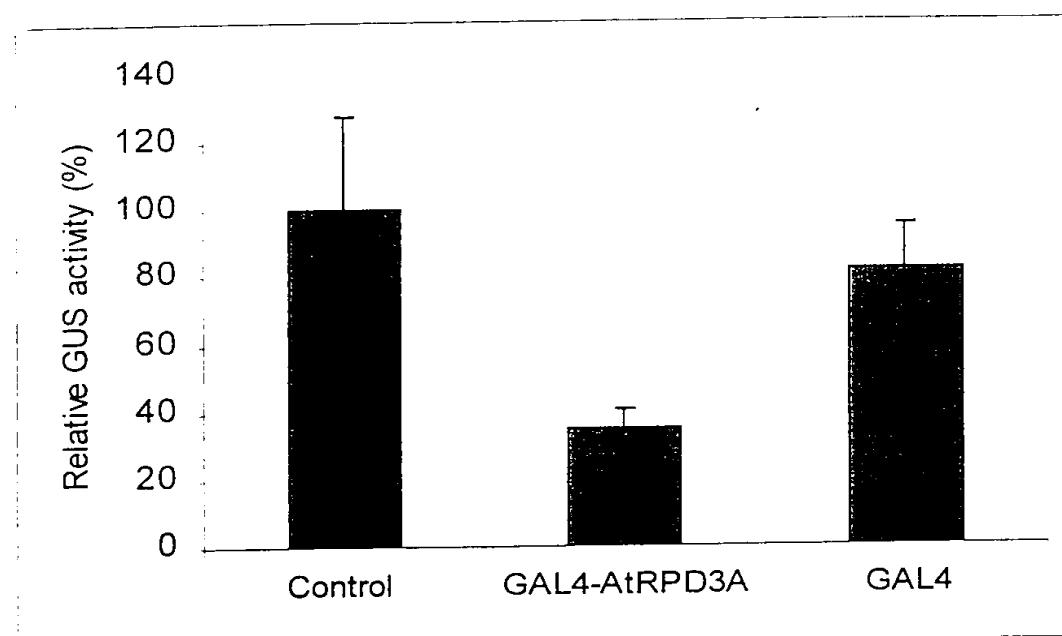


Figure 10

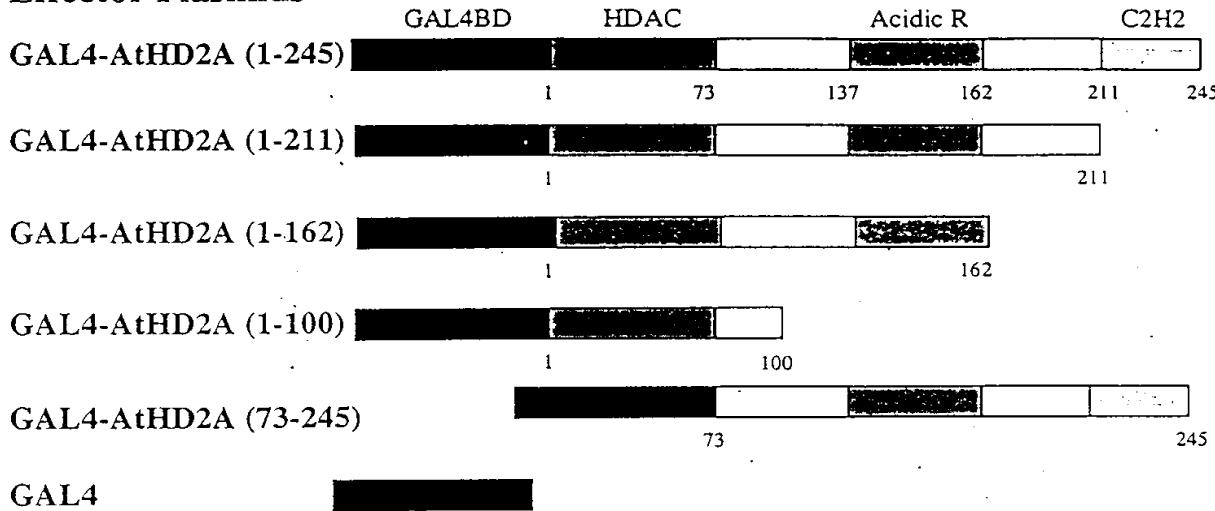
A

Reporter Plasmid

UAS_{GAL4}-tCUP-GUS



Effector Plasmids



B

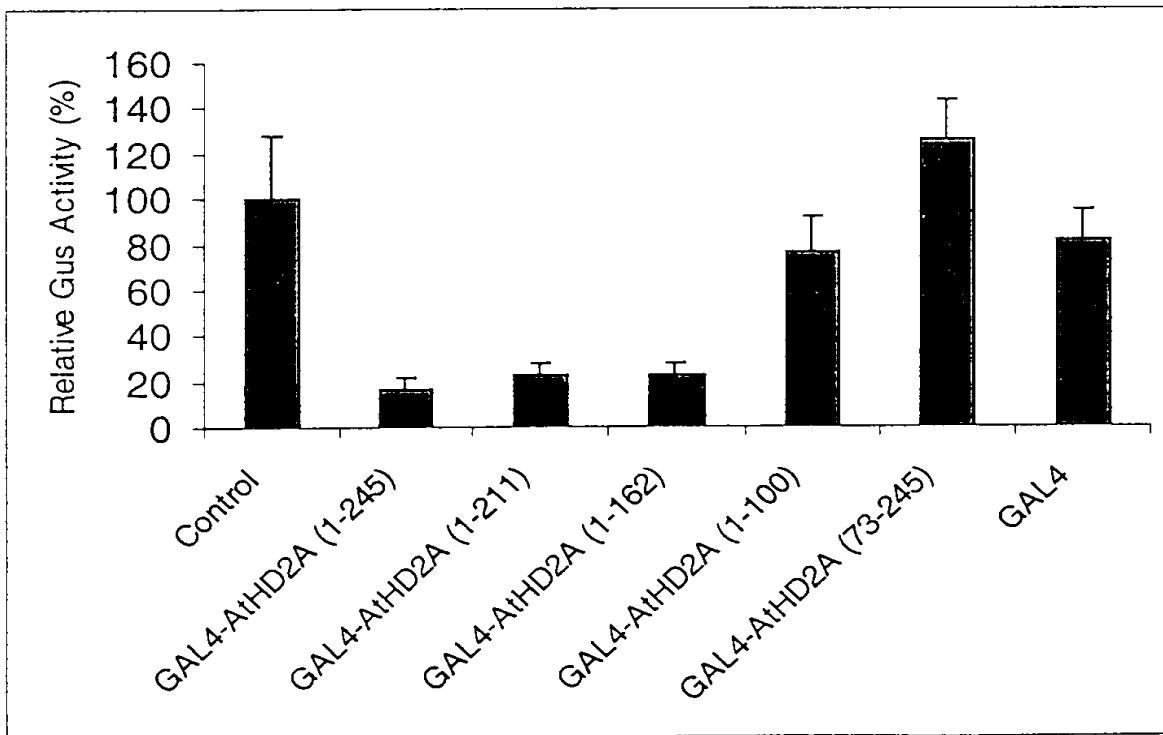
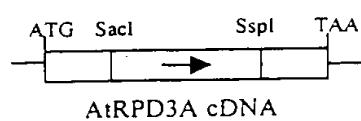


FIGURE 11

A



B

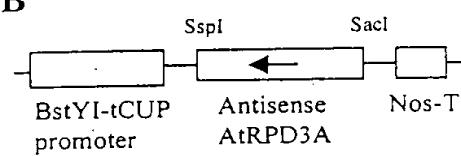


FIGURE 12

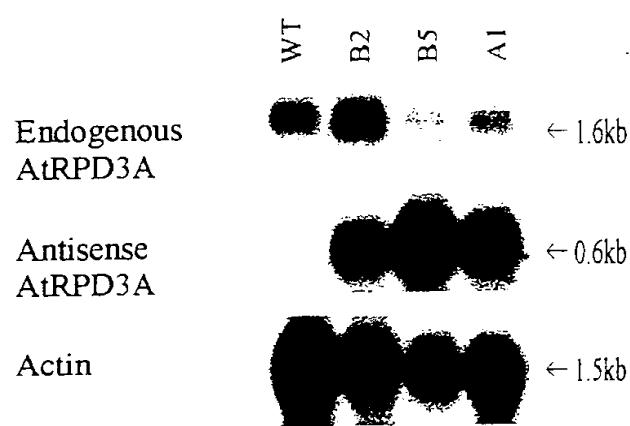


FIGURE 13

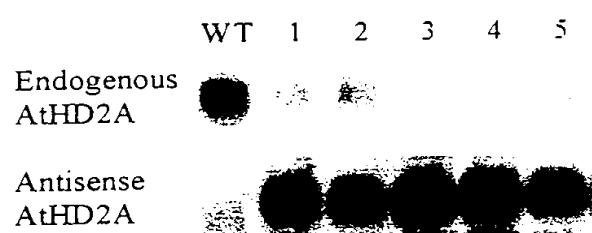


FIGURE 14

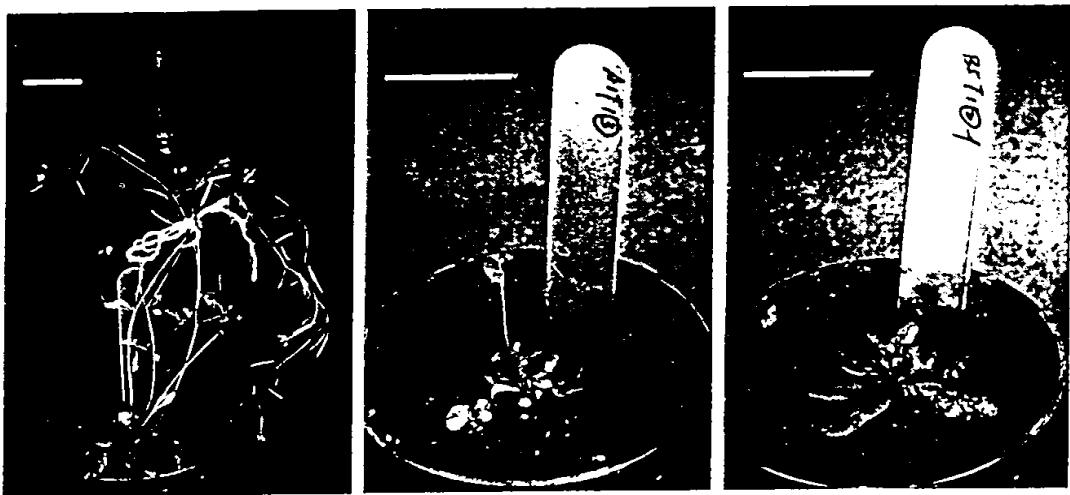


FIGURE 15



FIGURE 16

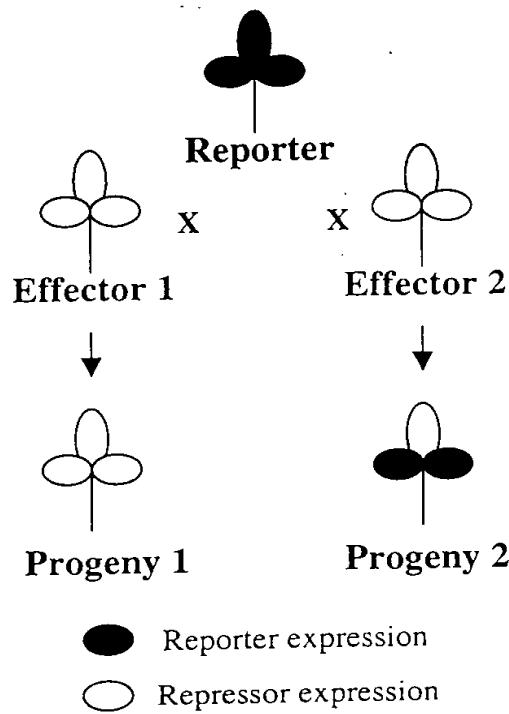
A



B



A



B

Effector Plasmids

tCUP-GAL4/AtHD2A (Effector 1)



NAP1-GAL4/AtHD2A (Effector 2)



Reporter Plasmid

UAS_{GAL4}-tCUP-GUS (or UAS_{GAL4}-35S-GUS)

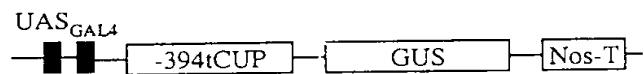


Figure 17

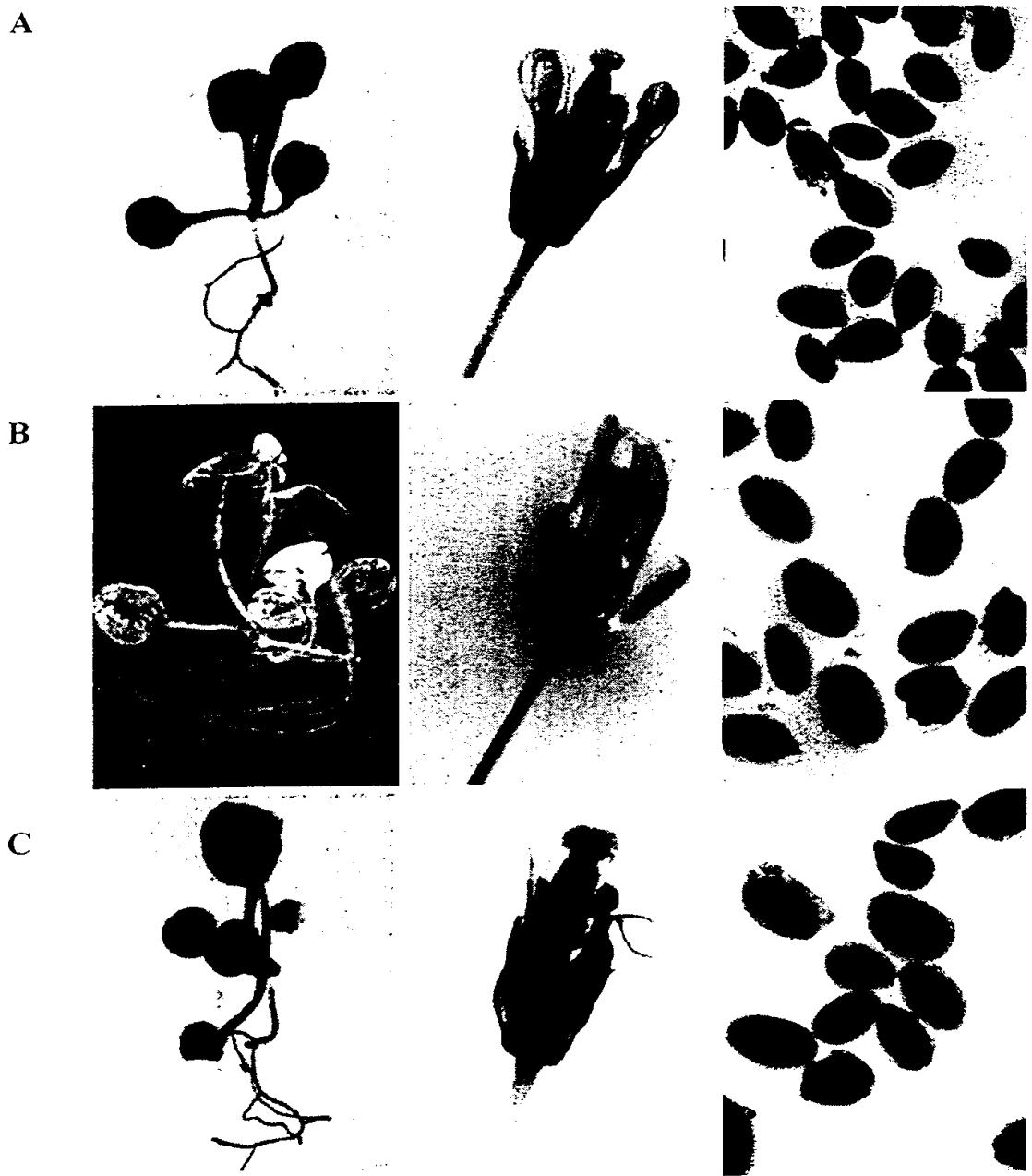


Figure 18

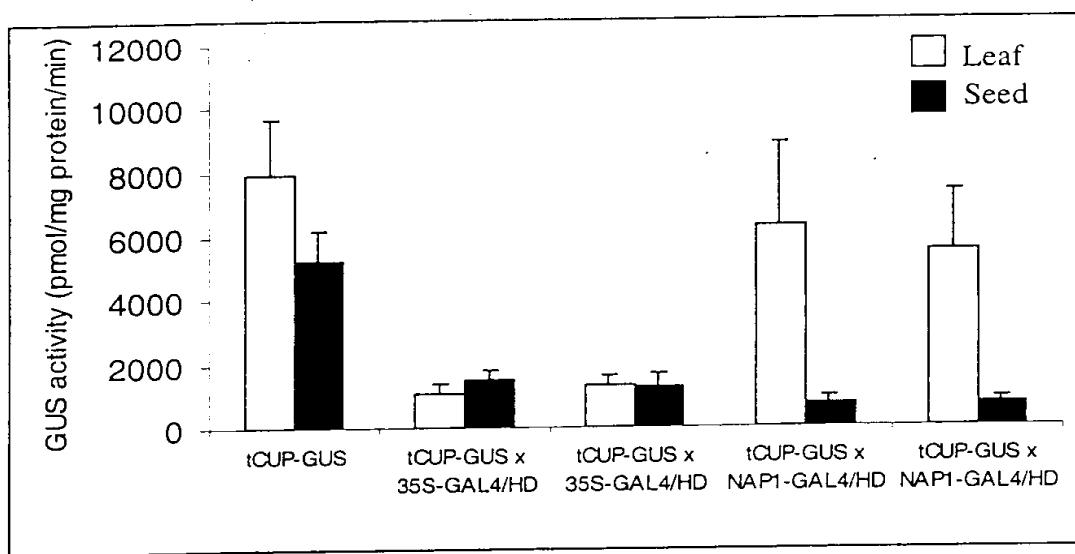


Figure 19(a)

Tissue Fluorogenic Transient Expression Assay of Leaves

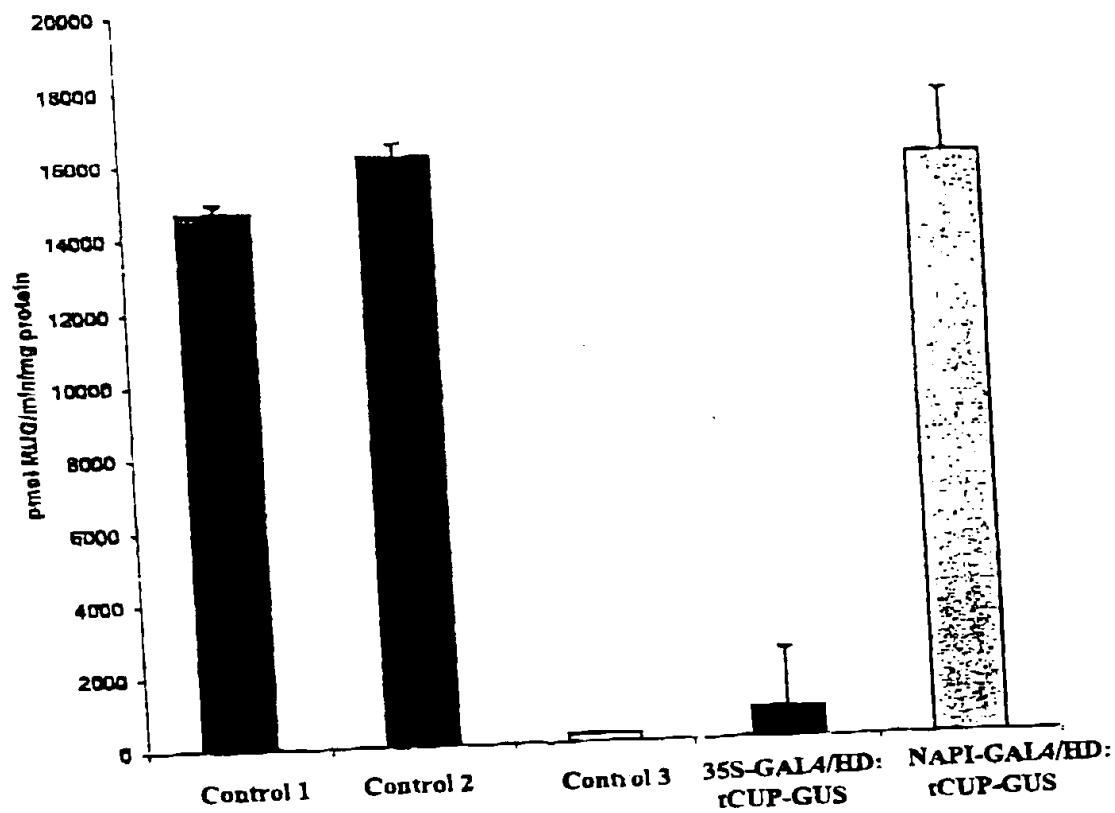


Figure 19(b)

Tissue Florogenic Transient Expression Assay of Seeds

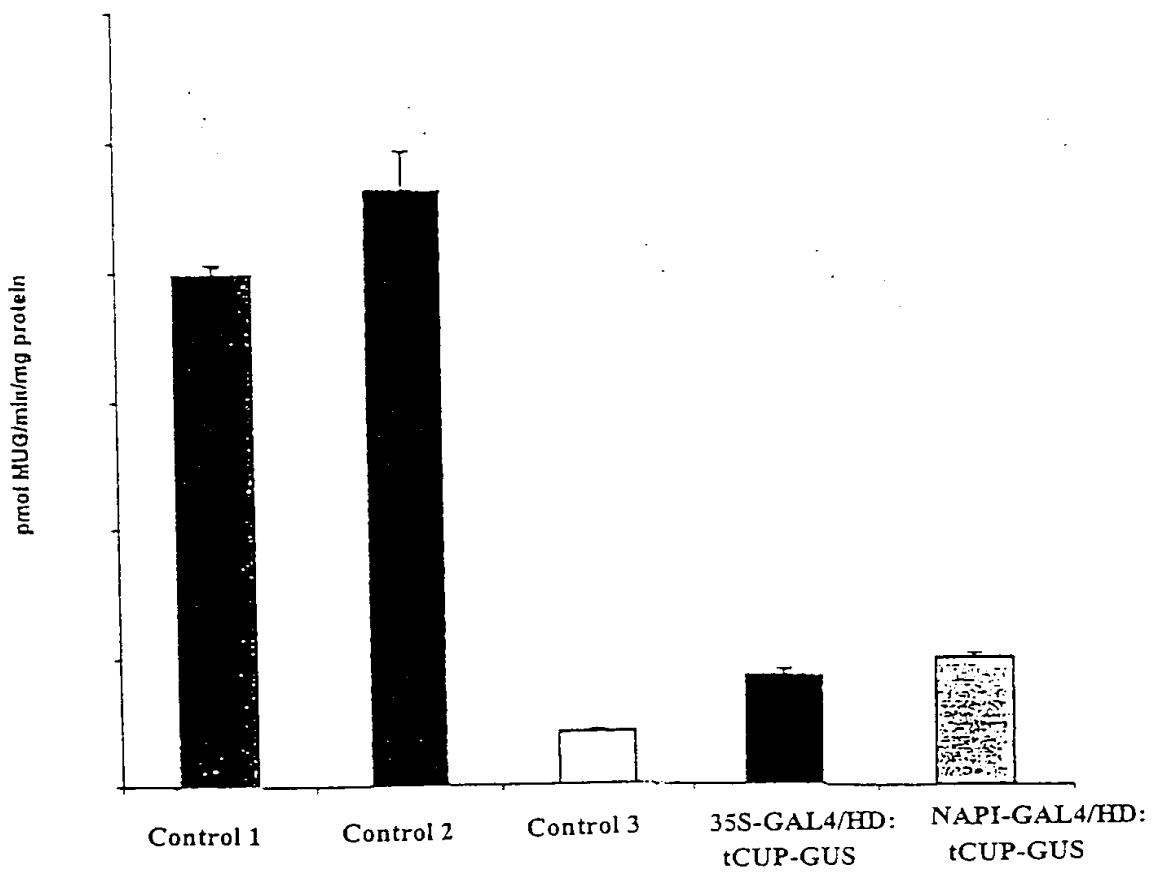
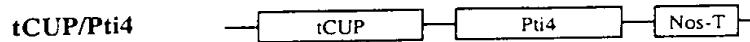
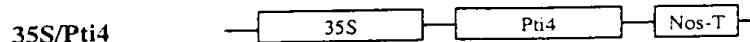


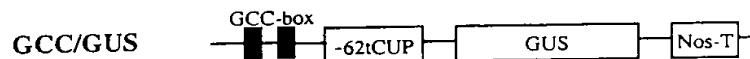
Figure 19(c)

A

Effector Plasmids



Reporter Plasmid



B

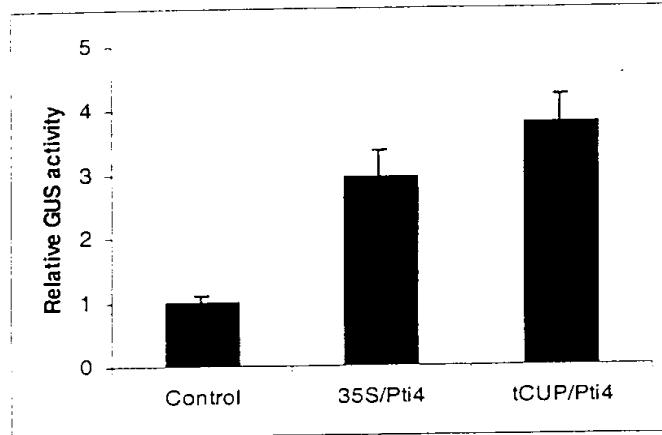


Figure 20

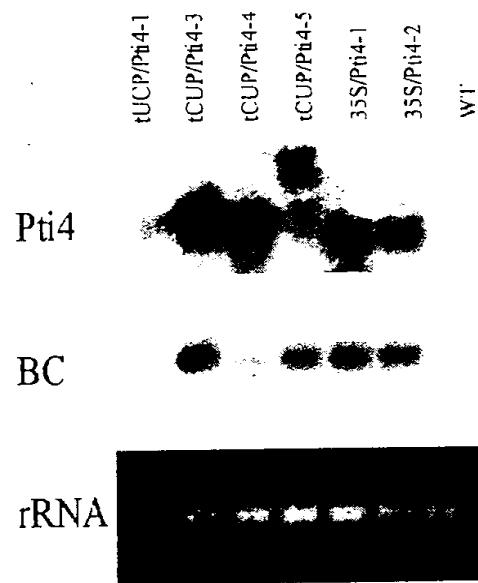


Figure 21

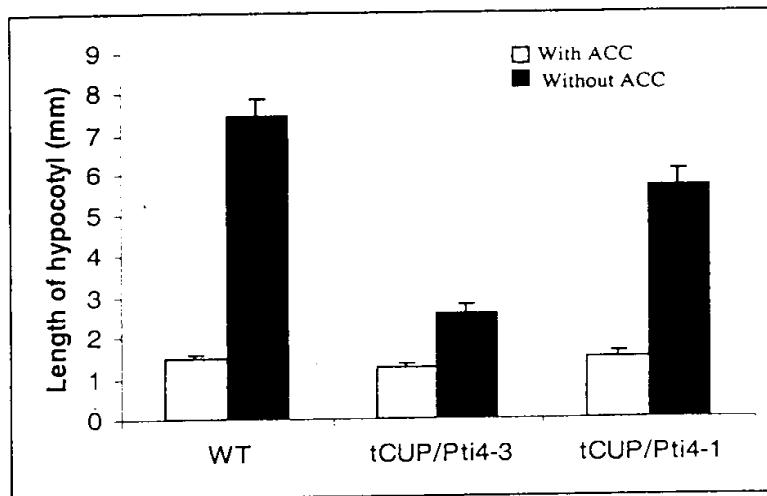


Figure 22

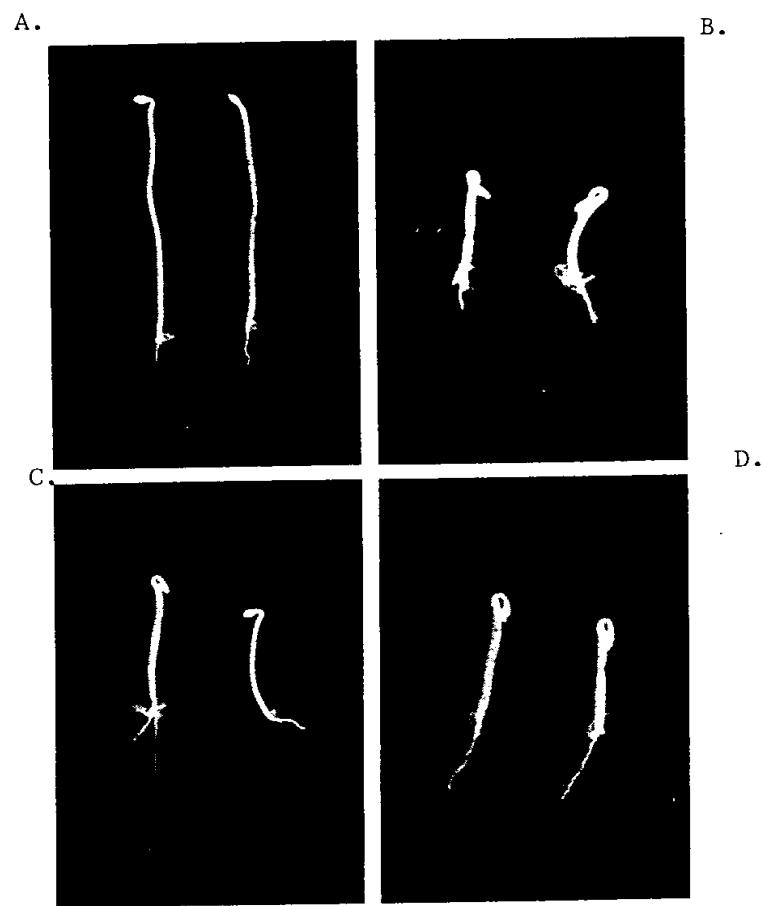


Figure 23

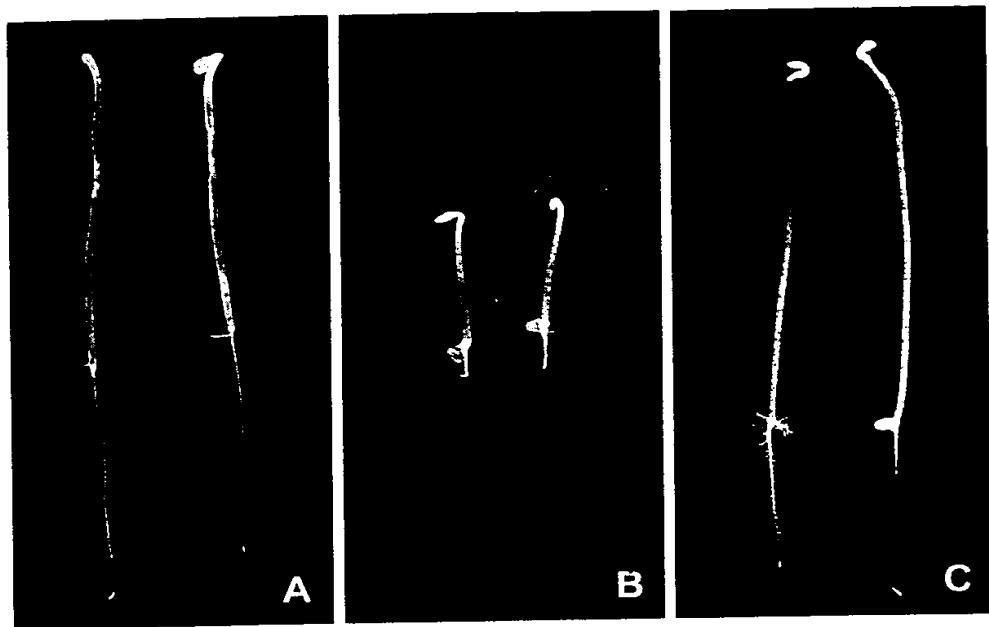


Figure 24